

Philippine Sanitation Alliance

7th Quarterly Report

April to June 2009

Prepared by AECOM International Development for USAID/Philippines under Cooperative Agreement No. 492-A-00-07-00023-00

I. Executive Summary

During the quarter, 9,538 people were provided with improved sanitation as a result of several projects: two wastewater treatment plants (WTPs) designed by PSA partner Bremen Overseas Research and Development Assistance (BORDA) began operating and construction started on two others. Following participation of Department of Health (DOH) staff from Region IV-A in the technology/finance workshop for hospitals and several follow up presentations and meetings, the DOH is building a WTP for the Laguna Provincial Hospital, and plans to develop treatment plants for all of its hospitals in the region. Zamboanga City engineers, with assistance from the PSA, developed a preliminary design report and conceptual plan for a wastewater system to serve the public market. Funds leveraged for the quarter totaled \$422,196.

On Earth Day, the PSA conducted a hygiene promotion activity in Sta. Rosa, Laguna, in partnership with Coca-Cola Bottling Plant Philippines (CCBPI) and Santa Rosa City. The activity was graced by US Ambassador Kristie Kenney, the mayor, the CEO of CCBPI and a group of small children and their mothers.

The PSA worked with several cities and water districts to develop septage management programs and promotion campaigns to ensure the programs are successful and the public will be willing to pay the user fees. Concept notes for two projects were developed for funding through the joint USAID-Rotary International water supply and sanitation grant program.

II. Results Achieved

Achievement of performance indicators and results are on track for the year, although it is not clear if the target of providing 300,000 people with access to improved sanitation will be reached by September 30 since several septage management programs are at various stages of development and may not qualify to be counted by September 30. Achievement of the project target of 1.2 million people by the end of FY11 is still likely because the project is actively developing nine septage management programs. Non-USAID funds leveraged have exceeded the target for the fiscal year.

Indicator Reporting

Summary of Results

Indicator	FY08 Results	7th Qtr Results	FY09 Results to Date	FY09 Target	Project Target
1. Number of people in target areas with access to improved sanitation facilities as a result of USG assistance (disaggregated by gender).	17,166	2,647 Men 6,891 Women 9,538 Total	15,913	300,000	1,200,000
2. Number of feasibility and special studies/plans prepared	4	1	1	4	12
3. Amount of non-USAID financing mobilized for sanitation projects and facilities.	\$407,365	\$422,196	\$1,621,709	\$1,193,740	\$3,477,805
4. Number of people trained in environmental law, enforcement, public participation, and cleaner production policies, strategies, skills and techniques, disaggregated by gender.	1037	49 men 29 women 78 total	387	400	1500
5. Number of people trained in child health and nutrition through USG-supported health area programs.*	-	44 men 143 women 187 total	187	100	1500
6. Increase in the percentage of mothers of children under five who can cite at least 2 measures to prevent diarrhea.	-	-	-	-	25%
7. Increase in the percentage of students who, while at school, observably wash their hands with soap and clean water after using the toilet to prevent diarrhea.	-	-	-	-	25%
8. Number of pollution and urban environment policies, laws, agreements or regulations implemented as a result of USG assistance.	2	-	-	1	5
9. Number of hygiene-related policies, laws, agreements or regulations implemented as a result of USG assistance.	-	-	-	0	2

10. Number of wastewater treatment projects developed by PSA partners that reduce pollution to levels that meet the government's effluent standards.	-	-	-	1	8
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Details of Results

- During the quarter, two wastewater treatment plants (WTPs) designed by PSA partner BORDA began operating: the Iloilo Slaughterhouse WTP and the Sorsogon New Public Market WTP. Construction started on two other WTPs designed by BORDA: the Guihulngan Public Market WTP and Zamboanguita Slaughterhouse WTP. Following participation of Department of Health (DOH) staff from Region IV-A in the technology/finance workshop for hospitals and several follow up presentations and meetings, the DOH is building a WTP for the Laguna Provincial Hospital, and plans to develop treatment plants for all of its hospitals in the region.

Project	Men	Women	Total
Guihulngan Public Market	699	933	1,632
Sorsogon New Public Market	1,251	5,351	6,602
Laguna Provincial Hospital	640	541	1,181
Zamboanguita Slaughterhouse	5	0	5
Iloilo Slaughterhouse	52	66	118
Total	2,647	6,891	9,538

- The initial engineering design for the Zambaonga Public Market Wastewater Treatment plant was completed (hard copy was given to the Agreement Officer's Technical Representative on July 30).

3.

Private Sector	\$2,088.16	Cash	\$421,833.25
<u>Public Sector</u>	\$420,107.94	In Kind	\$362.84
Total	\$422,196.10	Total	\$422,196.09

(See attached summary in Excel. Cost share sheets from each partner are available upon request)

4.

People Trained	Men	Women	Total
Promotions Workshop-May 26-27, 2009-Zamboanga City	21	9	30
Septage Management Promotion-June 18-19, 2009-Dumaguete City	<u>28</u>	<u>20</u>	<u>48</u>
Total for Quarter 7	49	29	78

5. Sta. Rosa City and Coca-Cola Bottling Company, Inc., in partnership with the PSA, conducted an Earth Day handwashing and hygiene promotion event in Sta. Rosa City on April 22, 2009.

People Trained in Child Health and Nutrition	Men	Women	Total
Sta. Rosa Earth Day Celebration-April 22, 2009-			
Sta. Rosa City	44	143	187
Total for Quarter 7	44	143	187

III. Summary of Major Accomplishments

A. Linking Water, Sanitation and the Environment on Earth Day in Santa Rosa

The PSA celebrated Earth Day on April 22 in Sta. Rosa with US Ambassador Kristie Kenney, Coca-Cola Bottling Plant Philippines (CCBPI) CEO David Lyons, Santa Rosa City Mayor Arlene Arcillas-Nazareno, other officials, and a group of small children and their mothers. The event was a WASH (water, sanitation and hygiene) Day, in which Captain WASH taught the children proper handwashing, and the children answered questions about proper hygiene, played games and received WASH kits with soap and towels, Captain WASH comics and crayons. About 185 children and mothers from three barangays (Tagapo, Kaingin and Sinaljan) that have the highest incidence of diarrhea in the city participated in the event, which was held at the Coca-Cola Bottling Plant Training Center. A survey of 100 respondents from the three barangays was conducted prior to the event to assess current knowledge, attitudes and practices regarding sanitation and hygiene. This data will be used to design a promotions campaign to increase the practice of handwashing; this being the first event in the campaign. After the campaign is completed, another survey will be conducted to assess its effectiveness, and the incidence of diarrhea will also be tracked. During the Earth Day event, CCBPI Santa Rosa Plant Manager and President of the Save Silang-Santa Rosa River Rehabilitation Foundation Mr. Roderick Ticzon gave a presentation on the river council's work, and the MOU between Coca-Cola Export Corporation and PSA was formally signed, with Coca Cola pledging to support promotion campaigns on sanitation, including printing PSA information materials worth over P300,000. The PSA also contributed to the City's photo exhibit at SM Santa Rosa from April 19 to May 3 as part of the Earth Day Philippines' agreement with SM to support Earth Day.

Coca-Cola Bottlers Philippines CEO David Lyons, US Ambassador Kristie Kenney, and Santa Rosa City Mayor Arlene Arcillas-Nazareno teach the children proper hand washing technique during the celebration of WASH Day.

B. Zamboanga Public Market Wastewater Treatment System Designed

With technical assistance from PSA Engineer Carlito Santos and Sr. Sanitation Advisor Dave Robbins, the office of the City Engineer, Planning Design and Programming Division of Zamboanga City has produced a preliminary design report and conceptual plan for a wastewater system to serve the public market.

Because of the site constraints, several configurations of wastewater treatment systems were considered as follows:

Technology	Constraints	Accepted or Rejected
Sewage lagoon	Land available is insufficient	Rejected
Activated sludge	Cost and maintenance are high	Rejected
Anaerobic Baffled Reactor (ABR) with constructed wetland	Land available is insufficient	Rejected
ABR/Sequencing Batch Reactor (SBR)	Cost and O&M are high, but less so than Activated Sludge	Accepted

The configuration of the system includes:

- A sewage collection system that will collect the wastewater from stalls and convey it to the treatment system through a series of pipes;
- Grease and trash traps to be located at strategic points throughout the sewerage system;
- Junction boxes and cleanouts to facilitate easy maintenance of the sewerage system;
- Wastewater treatment plant using a hybrid design that combines an equalization tank, settler, anaerobic cells, and SBR reactors for accomplishing secondary treatment; and
- Disinfection system including chlorinator and contact tank.

The system is designed to handle the high strength wastewater flow of up to 800 mg/l of biochemical oxygen demand (BOD) and 1,000 mg/l of total suspended solids (TSS). Total flow will not exceed 210 cubic meters per day.

The design of the system is such that it may be constructed on a concrete slab, installed in an excavated tank hole, or constructed on piers should the city wish to utilize unstable ground or even land that is within a floodplain or floodway.

C. USAID-Rotary Partnership Development

The PSA has held many meetings and site visits to develop two projects for funding under the new USAID-Rotary International Partnership. With the Rotary Club of San Fernando, the PSA is develop a septage management and small community sewerage project. With the Rotary District covering Manila and the District covering Quezon City, the PSA is developing a project to improve the environment, health and hygiene in three areas in the Pasig River system. The three areas are Paco and Sta. Ana in Manila, and Baesa in Quezon City. The major components will be building a wastewater treatment plant for a public market, improving public toilets and sinks in markets and schools, promotions and community development to support Maynilad Water's wastewater treatment systems, solid waste and grease management, and hygiene promotion.

In relation to the work in Paco, PSA Senior Sanitation Advisor Dave Robbins and volunteer Aude Mingam and attended the Kapit Bisig Para Sa Ilog Pasig's first Multi-Sectoral Forum On June 25 to discuss sanitation interventions for the Paco public market. This was the first in a series of forums designed to communicate the group's strategy for addressing sanitation issues in the Paco community. Speakers from Maynilad Water, Metropolitan Waterworks and

Sewerage System, and the Laguna Lake Development Authority presented the regulatory requirements for solid waste and wastewater, and discussed the 2009 strategy for improving sanitation in Paco. Among the interventions discussed: need for Maynilad Water to repair the Paco public market wastewater connections to the existing sewer system; connecting 2000 residential and business customers to the Maynilad sewer system; installing a Material Recovery Facility (MRF) at the public market; and relocating 168 informal settlers from the banks of the Estero de Paco to resettlement communities. PSA is developing a proposal for Rotary International funding to support the work through training, capacity building, and promotions related to improved sanitation at the market and in the community.

D. Zamboanga City Council Discusses Septage Ordinance and Promotions Team Develops Plan

On Friday, May 29, the Zamboanga City Council conducted the second reading of the proposed Septage Management Ordinance. The program centers on a septage management plan that promotes a partnership between the city, water district and the private sector. The general reaction of the councilors was that the septage program is both needed and desirable for the city, although two Councilors appear to be opposed to the project. Dave Robbins, PSA Sr. Sanitation Advisor, presented the required institutional arrangements as well as the technical aspects and user fees that will support the program. The desire of the majority of the Councilors is that the program should have a sliding fee scale that would set a lower minimal cost for the lowest water consuming customers. The Councilors have agreed to have a closed door session with the private sector service providers to discuss the fee structure and service charges that will be paid by the city. The third and final reading of the ordinance is currently scheduled for August.

In addition to the septage program, Engr. Lito Santos met with the recently selected contractor that is building the wastewater system for the new slaughterhouse. That project is scheduled for groundbreaking during the week of June 2.

PSA consultants Andrea Echavez and Nene Narvaez facilitated a two-day promotions workshop May 26-27 in which the Zamboanga Promotions Team presented the results of the two surveys that were conducted as a baseline and as input for the development of the promotions plan. The first survey focused on households and the second focused on commercial establishments. They covered the following topics: basic demographics, how diarrhea can be prevented, prevalence of handwashing with soap, existence and type of septic tank, frequency of desludging, whether it is accessible for desludging, preferred payment and willingness to pay for desludging services and preferred communication media. The workshop participants then identified feasible behaviors, target audiences and how the promotions plan fits into their broader change strategy. They then prepared a specific promotions plan that includes objectives, key promise and message, media channels and budget.

E. Dumaguete Promotions Team Develops Plan

PSA consultants Andrea Echavez and Nene Narvaez facilitated a two-day promotions workshop June 18-19 in which the Dumaguete Promotions Team presented the results of the two surveys that were conducted with households and commercial establishments. The surveys focused on septage management and hygiene and will be used as a baseline and as input for the development of the promotions plan. The workshop was well-attended with more than 20

participants from the city government, water district, academe, media, NGOs, business, and other sectors. The Promotions Team completed Steps 3 to 5 and part of Step 6 of the USAID 10-Step Promotions Toolkit. At the end of the workshop, the Promotions Team completed Products 2 to 6 which cover behavior analysis and concrete action steps for the campaign. Judy Flores, a local media practitioner, was asked to give an overview of the local media landscape to give members of the Promotions Team an idea on how to maximize media relations vis-a-vis the whole campaign. On the last day of the workshop, participants visited the site of the septage treatment facility, which is currently under construction. An MOU between the city and the water district was recently approved, and the water district will start collecting the user fee in October.

F. MIWD to Spearhead Septage Management in Iloilo City and 7 Other LGUs

Senior Project Coordinator Jay Tecson gave a presentation to the Board of Directors and operations personnel of Metro-Iloilo Water District (MIWD) and the officers and staff of the City Environment Office of the City government of Iloilo last June 23 in Iloilo City. The presentation covered development of a septage management program for Iloilo City and national programs covering septage management. In the open forum, MIWD Chairman Celso Javelosa expressed the water district's support for the proposed program and committed to immediately undertake a project study that will cover not only Iloilo City but also seven other local governments within their service area. The program is preliminarily estimated to cost about P80 million and will provide improved sanitation service to a majority of its combined 760,000 population.

During the orientation, representatives from large water utilities from Roxas City, Municipality of Kalibo, and Bacolod City were present and expressed interest to spearhead similar initiatives in their respective service areas. Tecson was interviewed by TV networks ABS-CBN and GMA, live radio DWSI Super Radyo, and Visayan newspaper Daily Guardian (see the attached articles). The dialogue was part of the Iloilo River Week celebration.

G. PSA Advises Universal Robina Corporation on Waste-To-Energy Projects

On June 24th, PSA's Senior Sanitation Advisor Dave Robbins met with the 18 Pollution Control Officers of the Universal Robina Corporation in Manila to help develop a strategy for more effective management of their waste. This is part of an on-going effort by PSA to help private partners lessen their impact on natural resources by reducing the amount of waste discharged to the environment. The consultation identified a strategy for managing methane emissions for the firm's 18 sewage treatment plants. Instead of flaring the gas, the company will begin a study on capturing the methane for in-plant use while exploring the potential for certifying the program for the sale of carbon offset credits. If successful, this effort will eliminate a discharge to the atmosphere of over 200 tons of greenhouse gasses a year. Additionally, Dave Robbins recommended that the company utilize its waste biomass for a waste-to-energy projects. The company produces in excess of 20 tons of spent green tea leaves each week, which may be an excellent source of energy. Removing this material from the waste stream and converting it to a source of energy that can be used in the manufacturing process represents a significant benefit to the company. A follow up visit will be conducted in August.

IV. Management and Finance

The project is on track in terms of overall management, reporting and expenditures. However, the revised work plan for FY09 and revised Monitoring and Evaluation Plan need to be finalized and submitted following the expansion of the project on May 1, 2009. The project has been expanded in scope, budget and time (one year was added, bringing the project completion date to September 30, 2011). Another contract modification request will need to be submitted and processed to add funds to the project for the additional Rotary grant activities mentioned above.

V. Performance Objectives for Next Quarter

During the next quarter, AECOM will focus on the following major activities:

1. Promotions workshop in July
2. Working with several cities and water districts to develop their septage management programs.
3. Final submission of the Rotary grant applications.
4. Assistance to several cities and water districts to further develop their promotions plans and materials following the July workshop.
5. Completion of several deliverables to meet the FY09 indicator targets (project studies, lab results, etc.).